



Parts Washer Resource Sheet

Winter 2002

Cleaning solvents are usually the largest hazardous waste stream in a shop. Most solvents currently used are highly flammable and contain VOCs which contribute to smog. Chemicals commonly found in cleaning solvents may cause significant worker health concerns; examples include 1,1,1-trichloroethane (TCA) which causes lung, liver, and brain damage, and methyl ethyl ketone (MEK) which causes liver and kidney damage.

There are alternatives to the standard 105-degree flashpoint solvent. These alternatives include a higher flashpoint solvent such as the 150-degree flashpoint or move away from solvents altogether and use an aqueous cleaning unit.

Aqueous Cleaning Units

Aqueous cleaners are water-based solutions that are typically nonflammable and contain little or no VOCs. Aqueous cleaners rely on mechanical force, heat and soap action to clean parts. Aqueous parts units may clean differently than solvents but perform just as well. There are four main types of aqueous units; Spray cabinet, Microbial sink-top, Ultrasonic unit and Immersion unit. Shops will have to decide what type of unit meets their cleaning needs best.

What to do with the wastewater?

Many parts cleaners are equipped with oil skimmers that can reduce oil concentrations and improve water recycling capabilities. Even with an oil skimmer in place, the pollutant levels in automotive parts cleaning wash water may still exceed discharge limits. For upright sink-style parts washers, the vendor can recommend an appropriate replacement/disposal frequency for the parts washing fluid. With dishwasher-type units, once the recirculated wash water becomes too dirty for washing parts, the metals concentrations may be too high for sanitary sewer disposal. Off-site treatment and disposal may be necessary to dispose of the wash water. Another option is to perform a metals analysis before every discharge to the sanitary sewer. The pollutants must comply with the Boulder Revised Code regulations Title 11, chapter 3, section 4-5. For more information regarding the pollutant limits please call the Industrial Pretreatment Program at 413-7350.

Partners for A Clean Environment (PACE) Certification Requirement

To become a certified partner in the PACE program, businesses are required to eliminate or reduce the use of chemicals with flashpoint below 140°. Below is a list of the different companies that provide high flashpoint solvents and aqueous parts cleaners. *The PACE program in no way endorses any of the companies, nor regards this as a complete list of parts cleaner manufacturers.*

Manufacturer	Phone number	Types of Products
Curtis Industries	303-786-1548 Walter Daumler	Sells the ChemFree Smart Washer that uses a safe, biodegradable cleaning solution. They also sell the dishwashing units
Clean Parts	303-388-8200 Jim Mathers	Provides solvent tanks with a flashpoint of 150 degrees. Have water based cleaners and spray cabinet washers.
Safety-Kleen	303-761-8614	Provides solvent tanks with a flashpoint of 150 degrees. Also provide aqueous brake cleaning units.
EcoShield	1-877-326-7443	The EcoClean ACRS line of systems creates a valuable emulsion cleaner, reduces wastewater generated, reduces make-up soap requirements, and increases operational uptime and throughput